40. The method of claim **39**, wherein the double-stranded target nucleic acid molecule comprises (i) a DNA molecule, (ii) an RNA molecule, or (iii) a cDNA molecule derived from an RNA molecule.

41. The method of claim **39**, wherein the cypher-target nucleic acid complex comprises at least two nucleic acid molecule priming sites.

42. The method of claim **39**, wherein the cypher-target nucleic acid complex comprises an identifier sequence on both strands.

43. The method of claim **39**, wherein the cypher-target nucleic acid complex comprises an identifier sequence at each end.

44. The method of claim **42**, wherein the random or partially-random identifier sequence is double-stranded.

45. The method of claim **44**, wherein the random or partially-random identifier sequence comprises about 5 to about 20 nucleotides.

46. The method of claim **39**, wherein the random or partially-random identifier sequence uniquely labels the double-stranded target nucleic acid molecule.

47. The method of claim **39**, wherein the double-stranded cypher uniquely links each strand of the double-stranded target nucleic acid molecule relative to its original complementary strand.

48. The method of claim **39**, wherein the target nucleic acid molecule is ligated to a distinct cypher on each end, thereby providing a unique pair of identifiers for the target nucleic acid molecule.

49. The method of claim **39**, wherein a unique pair of identifiers is provided for each target nucleic acid molecule in a plurality of target nucleic acid molecules in the ligating step.

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